COMPUTING AND MULTIMEDIA ENTERTAINMENT SYSTEM

TECHNICAL FIELD OF THE INVENTION

The present invention pertains in general to entertainment systems and, more particularly, to a remotely controllable computing and multimedia entertainment system providing a broad array of computing and multimedia entertainment capabilities.

BACKGROUND OF THE INVENTION

In recent times, numerous electronic technologies including audio signal processing, video signal processing and data processing have become more available to individual users. With more advanced electronic technologies available to users, new and different needs for entertainment applications have arisen.

Two areas in which needs for improved entertainment applications exist are in generating multimedia presentations and telecommunications. Multimedia refers to the integration of text, audio, graphics, still image and moving pictures into a single, computer-controlled, multimedia product. It includes the combination of computers, video disk or compact disk players, video monitors, optical scanners, audio cards, music synthesizers, etc., all linked together by powerful developmental software. Telecommunications, on the other hand, includes applications for communicating by electronic transmission signals from devices such as telephones, radio, and television. A number of factors, however, have precluded the ability of system designers to develop systems which can fully utilize and integrate multimedia and telecommunications applications in a single workstation. These factors include public acceptance, excessive costs, system complexity, and incompatibilities among the various electronic technologies.

With all the various multimedia and telecommunications systems available to the user, there is no single system that provides easy access to multimedia and telecommunications applications. With known systems for multimedia applications, several independent multimedia systems must be connect together via electrical and electronic connections. Similarly, integrated telecommunications applications require numerous electrical and electronic connections with multiple systems. If many multimedia and telecommunications applications are to be integrated with known systems, the result often is a room with an array of cables and independent electrical and electronic connections. As a result, integrating multimedia applications systems with telecommunications systems using known system is both expensive and fraught with substantial limitations. For entertainment purposes, the need for multiple independent systems and various electrical and electronic connections and cables, makes multimedia and telecommunications application have limited accessibility.

Thus, there is the need for a system that in a single chassis or platform can effectively integrated multimedia and telecommunications applications for entertainment purposes.

There is the need for a system and method that permits combining computing technology with multimedia and telecommunications technologies for a wide variety of entertainment purposes.

Additionally, there is the need for an entertainment system that is easily controllable and that uses inexpensive computer technology for simple and effective control of multimedia and telecommunications applications.

SUMMARY OF THE INVENTION

The present invention accordingly provides a personal computer workstation that substantially eliminates and reduces disadvantages and limitations associated with prior electronic entertainment systems, as well as providing numerous entertainment functions heretofore either not possible or very expensive to perform.

According to one aspect of the invention, there is provided a remotely controllable computing and multimedia entertainment system that comprises a personal computer within a personal computer chassis and includes a monitor. The system includes an entertainment circuit for receiving a plurality of entertainment signals that comprises in association with the personal computer and in the chassis a radio frequency circuit, a television circuit and an audio multimedia circuit. The radio frequency circuit receives a plurality of radio frequency signals and includes circuitry for recording the radio frequency signals within the personal computer. The television circuit receives a plurality of television signals and associates with the computer monitor circuitry. The audio multimedia circuit associates with the radio frequency circuit and the television circuit for programmably controlling and integrating the radio frequency signals with the television signals.

The audio multimedia circuit comprises an analog mixing circuit for mixing a plurality of analog audio signals, and an analog-to-digital/digital-to-analog converter in association with the analog mixing circuit for generating a plurality of analog output signals and directing the analog output signals to the analog mixing circuit. The analog-to-digital/digital-to-analog converter further associates with the analog mixing circuit for receiving a plurality of analog audio signals to generate a plurality of digital output signals.

According to another aspect of the invention, there is provided a telephone circuit for communicating over a telephone line a plurality of telephone input signals, the telephone circuit comprising a data/fax/voice modem circuit for communicating over the telephone line data, fax, and voice telephone signals. The telephone circuit associates with the entertainment circuit for external telephonic communication of entertainment circuit signals.

The present invention also provides a remote control circuit that includes a receiving circuit and a remote control device and in association with the personal computer for transmitting control signals to the receiving circuit. The receiving circuit associates with the personal computer to permit programmed controlling of the entertainment circuit. The remote control circuitry comprises a remote control hand held device and a remote control photodetector within the personal computer chassis.

A technical advantage of the present invention is that it provides an entertainment system that is easily controllable and that uses inexpensive computer technology for simple and effective control of multimedia and telecommunications applications.

Another technical advantage of the present invention is that it provides in a single chassis or platform can effectively integrated multimedia and telecommunications applications for entertainment purposes. The en-